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SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Christopher Yaen Examiner #: 79040 Date: 1-21-03
Art Unit: 1642 Phone Number 305-3586 Serial Number: 09/544,660
Mail Box and Bldg/Room Location: 8E18 Results Format Preferred (circle): PAPER DISK E-MAIL
→ 8E12

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Enhancement of peptide cellular uptake

Inventors (please provide full names): Ziwei Huang, Jialun Wang, Zhijia Zhang, Simei Shan, Xhixian Lu

Earliest Priority Filing Date: 4/7/1999

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

General Formula: $(R-X)_n$-peptide

Point of Contact:
Susan Hanley
Technical Info. Specialist
CM1 6B05 Tel: 305-4053

~~Alkyl C_{2-8} alkenyl~~

C_9 alkyl

Elected Formula: $CH_3(CH_2)_8CO-NH-$peptide

Search a little diff from first elected

Peptides: Seq ID NO: 1, 2, 6, 14, 29, 30, 32, 55

SAME Diff Diff Diff Diff Diff
26 21 27 16 16 16 28

56 57 Diff

Core - 27 17

Point of Contact:
Susan Hanley
Technical Info. Specialist
CM1 6B05 Tel: 305-4053

Core - from 56

10 sheets
No core

Please Forward to:
Susan Hanley

41

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STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher: Hanley	NA Sequence (#)_____	STN_____
Searcher Phone #:_____	AA Sequence (#)_____	Dialog_____
Searcher Location:_____	Structure (#) 1	Questel/Orbit_____
Date Searcher Picked Up: 1/21	Bibliographic_____	Dr.Link_____
Date Completed: 1/21	Litigation_____	Lexis/Nexis_____
Searcher Prep & Review Time:_____	Fulltext_____	Sequence Systems_____
Clerical Prep Time:_____	Patent Family_____	WWW/Internet_____
Online Time:_____	Other_____	Other (specify)_____

PTO-1590 (8-01)

Inventor Search

YAEN 09/544,664

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     (FILE 'HOME' ENTERED AT 13:56:41 ON 21 JAN 2003)

     FILE 'HCAPLUS' ENTERED AT 13:57:11 ON 21 JAN 2003
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L3          17848 S ZHANG Z?/AU
L4            180 S SHAN S?/AU
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L6          56494 S L1-5
L7           1583 S L6 AND ?PEPTID?
L8              6 S L7 AND CELLULAR UPTAK?
L9              4 S L8 NOT TAT/TI
                  SELECT RN L9 1-4

     FILE 'REGISTRY' ENTERED AT 14:01:18 ON 21 JAN 2003
L10           201 S E361-561
L11            17 S E562-578
L12           218 S L10-11
L13             1 S L12 AND "DECAN"
L14           131 S L12 NOT "UNCLAIMED"
L15            66 S L14 NOT "CLONE"
L16            61 S L15 AND PROTEIN/FS
L17             5 S L15 NOT L16
L18             0 S L16 AND NTE/FS
L19             0 S L16 AND "CONJUGATE"

     FILE 'HCAPLUS' ENTERED AT 14:07:35 ON 21 JAN 2003
L20             2 S L9 AND L17
L21             4 S L9 OR L20
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4 citations

selecting (Reg #15) from 4 cites in L9

218 cpds

getting rid of peptides

non-peptide/proteins

none of the peptides/proteins say that they have anything special attached to them

4 cites w/ 5 cpds displayed

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=> d ibib abs hitstr ind 1-4

L21 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:454125 HCAPLUS
TITLE: Structure-Activity Relationship of Reversibly Lipidized **Peptides**: Studies of Fatty Acid-Desmopressin Conjugates
AUTHOR(S): **Wang, Jeff**; Wu, Daphne; Shen, Wei-Chiang
CORPORATE SOURCE: School of Pharmacy, Department of Pharmaceutical Sciences, University of Southern California, Los Angeles, CA, 90033, USA
SOURCE: Pharmaceutical Research (2002), 19(5), 609-614
CODEN: PHREEB; ISSN: 0724-8741
PUBLISHER: Kluwer Academic/Plenum Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Purpose. To synthesize a series of reversible fatty acid-desmopressin (DDAVP) conjugates and to study their structure-activity relationship as anti-diuretic drugs. Methods. Seven fatty acid conjugates of DDAVP were prepd. using various reversible lipidization reagents as described in our previous reports. All products were purified by acid pptn. and/or size-exclusion chromatog. Reversed-phase HPLC was used to evaluate their purity and lipophilicity. The anti-diuretic efficacy of these fatty acid conjugates was assessed in vasopressin-deficient Brattleboro rats. Four selected conjugates, i.e., DPA, DPH, DPD and DPP (acetic, hexanoic, decanoic, and palmitic acid conjugate, resp.), along with DDAVP itself were used in Caco-2 cell uptake studies and their degrdn. and the regeneration of active DDAVP were investigated using an in vitro liver slice metabolic system coupled with a HPLC assay. Results. All fatty acid-DDAVP conjugates were more lipophilic than DDAVP as examd. by HPLC analyses. When cysteine was used as the linker, the capacity index (k', a measure of lipophilicity) of the conjugates was linearly correlated with the no. of carbons in the fatty acid chain. The anti-diuretic activity of the conjugates was correlated with the length of the fatty acid chain, with C10 as the minimal requirement for possessing the enhanced anti-diuretic activity. Among the seven fatty acid conjugates, palmitic acid conjugate was the most potent DDAVP deriv. Removal of carboxyl group from the cysteine linker completely abolished the enhancement of the activity. The extent of **cellular uptake** also pos. correlated with the lipophilicity of the conjugates. The metab. of DDAVP, DPH, DPD, and DPP by liver slices all followed first order kinetics with half-life of 0.30, 0.01, 0.06 and 3.44 h, resp. The degrdn. rates of DPH and DPD in the liver slice incubation were much faster than that of DDAVP and therefore an accumulation of regenerated DDAVP in the media was obsd. In contrast, DPP was metabolized much slower than DDAVP and, consequently, no significant accumulation of regenerated DDAVP could be detected. Conclusion. Conjugation of DDAVP with fatty acids increased the lipophilicity and the anti-diuretic activity of this **peptide** drug. The anti-diuretic activity of lipidized DDAVP was dependent on the chain length of the fatty acid, as well as the structure of the linker in the conjugate. The preservation and enhancement of the in vivo anti-diuretic activity of the conjugates is most likely due to a combination of an improved pharmacokinetic behavior and a concurrent regeneration of active DDAVP in tissues.

CC 63 (Pharmaceuticals)
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:900673 HCAPLUS

DOCUMENT NUMBER: 134:67151
TITLE: Secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them
INVENTOR(S): Ashkenazi, Avi J.; Baker, Kevin P.; Botstein, David A.; Desnoyers, Luc; Eaton, Dan L.; Ferrara, Napoleone; Fong, Sherman; Gao, Wei-qiang; Gerber, Hanspeter; Gerritsen, Mary E.; Goddard, Audrey; Godowski, Paul J.; Gurney, Austin L.; Kljavin, Ivar J.; Mather, Jennie P.; Napier, Mary A.; Pan, James; Paoni, Nicholas F.; Roy, Margaret Ann; Stewart, Timothy A.; Tumas, Daniel; Watanabe, Colin K.; Williams, P. Mickey; Wood, William I.; **Zhang, Zemin**
PATENT ASSIGNEE(S): Genentech, Inc., USA; et al.
SOURCE: PCT Int. Appl., 244 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 106
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000077037	A2	20001221	WO 2000-US14042	20000522
WO 2000077037	A3	20020228		
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EP 1208195 A2 20020529 EP 2000-936172 20000522
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WO 2001016318 A2 20010308 WO 2000-US23328 20000824
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SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
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CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1208202 A2 20020529 EP 2000-964919 20000824
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL

WO 2001068848 A2 20010920 WO 2001-US6520 20010228
WO 2001068848 A3 20020829
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
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LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
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US	2001-874503	A1	20010605
US	2001-880457	A	20010612
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AB The present invention is directed to novel **polypeptides** and to nucleic acid mols. encoding those **polypeptides**. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric **polypeptide** mols. comprising the **polypeptides** of the present invention fused to heterologous **polypeptide** sequences, antibodies which bind to the **polypeptides** of the present invention and to methods for producing the **polypeptides** of the present invention. Biol. activities are assigned to a no. of the gene products.

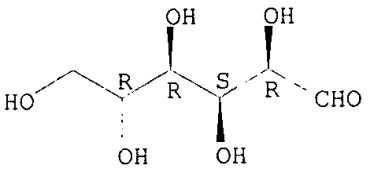
IT **127464-60-2**, Vascular endothelial growth factor
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(proteins inhibiting; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

RN 127464-60-2 HCAPLUS

CN Vascular endothelial growth factor (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **50-99-7**, D-Glucose, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(transport, protein stimulating; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
RN 50-99-7 HCAPLUS
CN D-Glucose (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM C07K014-00
CC 3-2 (Biochemical Genetics)
Section cross-reference(s): 6, 13
ST secreted transmembrane protein human gene discovery cDNA cloning sequence
IT Cell proliferation
(T cell, protein stimulating; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
IT Recombination, genetic
(amplification, in tumors; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
IT Proteins, specific or class
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
(apoptosis-regulating; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
IT Gene, animal
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(c-fos, proteins inducing expression of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
IT Gene, animal
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(cDNA, for secreted and transmembrane proteins of human; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
IT Cell adhesion molecules
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(cloning of cDNA for; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
IT Intestine, neoplasm
(colon, genes amplified in; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
IT Pancreas
(duct, protein stimulating cell proliferation in; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)
IT Blood vessel

(endothelium, proteins inhibiting proliferation of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT cDNA sequences
(for secreted and transmembrane proteins of human; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Genetic methods
(gene discovery; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Lung, neoplasm
(genes amplified in; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Biological transport
(glucose, protein stimulating; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Heart, disease
(hypertrophy, protein stimulating; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Kidney
(mesangium, protein stimulating cell proliferation in; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Nerve
(neuron, retinal, protein stimulating survival of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Protein sequences
(of secreted and transmembrane proteins of human; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Ear
(organ of Corti, inner hair cell, utricular, protein stimulating proliferation of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Capillary vessel
(pericyte, protein inducing gene expression in; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Biological transport
(permeation, vascular, proteins affecting; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Erythroblast
(protein inducing Hb synthesis in; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Chondrocyte
(protein inducing differentiation or proliferation of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Fibroblast growth factor receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(protein ligand for; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Cytokines
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(protein stimulating release of; secreted and transmembrane proteins of

human identified by gene discovery and cloning of cDNAs encoding them)

IT Cell proliferation
(proteins stimulating cell or tissue-specific; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Fatty acids, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(proteins stimulating **cellular uptake** of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Neoplasm
(proteins suppressing proliferation of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Eye
(retina, protein stimulating survival of neurons in; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Eye
(rod, protein stimulating survival of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Proteins, specific or class
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(secretory; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Proteins, specific or class
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(transmembrane; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Fibroblast growth factor receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(type 4, protein ligand for; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Blood vessel
(vascular leakage, protein stimulating; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT Pancreatic islet of Langerhans
(.beta.-cell, proteins affecting differentiation of; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT 151185-21-6 182078-03-1, Chemokine PANEC-2 (human pancreas)
185260-79-1, Protein PRO183 (human clone DNA28498) 197982-35-7
200515-38-4 202220-47-1 204081-38-9, Growth factor XAG-3 (human precursor) 208472-38-2 208668-55-7 208947-13-1 210044-19-2
210044-20-5, Glycoprotein p56-2 (human clone 2607571) 210479-05-3
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221369-74-0 221649-74-7 221890-47-7 222538-58-1, Protein z219a (human precursor) 229620-14-8, Lungkine (Mus musculus lung)
243123-56-0 260342-60-7 297277-25-9, Protein PRO4356 (human clone DNA86576-2595) 302874-51-7 307356-17-8, Protein PRO7170 (human clone DNA108722-2743) 312334-27-3, Protein PRO185 (human clone DNA28503)
312334-34-2, Protein PRO9940 (human clone DNA92282) 314326-32-4
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RL: BSU (Biological study, unclassified); PRP (Properties); BIOL

(Biological study)
(amino acid sequence; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT 150472-54-1 181505-79-3 221337-88-8 221337-91-3 221649-72-5
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RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT **127464-60-2**, Vascular endothelial growth factor
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(proteins inhibiting; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT **50-99-7**, D-Glucose, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(transport, protein stimulating; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

IT 252199-55-6 252199-57-8 261893-54-3 261893-55-4 261893-56-5
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RL: PRP (Properties)
(unclaimed nucleotide sequence; secreted and transmembrane proteins of human identified by gene discovery and cloning of cDNAs encoding them)

L21 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER:	2000:725483 HCAPLUS
DOCUMENT NUMBER:	133:276332
TITLE:	Enhancement of **peptide cellular uptake** with **peptide** conjugates
INVENTOR(S):	**Huang, Ziwei; Wang, Jialun; Zhang, Zhijia; Shan, Simei**; Lu, Zhixian
PATENT ASSIGNEE(S):	Thomas Jefferson University, USA
SOURCE:	PCT Int. Appl., 74 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

After ∅ PD 4/7/99

→ Poss. pull to get from wife

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000059526	A1	20001012	WO 2000-US9352	20000406
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1210098	A1	20020605	EP 2000-923177	20000406
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				

PRIORITY APPLN. INFO.: US 1999-128202P (Prov. 60/) P 19990407
WO 2000-US9352 W 20000406

OTHER SOURCE(S): MARPAT 133:276332

AB The described invention claims **peptides** conjugated to lipophilic moieties to enhance **cellular uptake**. The **peptide** conjugates are useful in the modulation of apoptosis. N-decyl-COHN-KNLWAAQRYGRELRRMSDEFEGSFKGL caused apoptosis of Bcl-2-transfected HL-60 cells.

IT **50812-37-8D**, Glutathione S-transferase, fusion proteins with Bcl-2, **peptides** binding to
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)

RN 50812-37-8 HCAPLUS

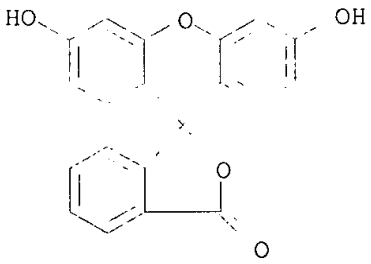
CN Transferase, glutathione S- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **2321-07-5DP**, Fluorescein, conjugates with **peptide**
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)

RN 2321-07-5 HCAPLUS

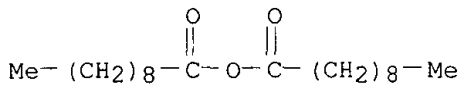
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI) (CA INDEX NAME)



IT **2082-76-0**, Decanoic anhydride
RL: RCT (Reactant); RACT (Reactant or reagent)
(enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)

RN 2082-76-0 HCAPLUS

CN Decanoic acid, anhydride (9CI) (CA INDEX NAME)



IC ICM A61K038-00
CC 1-6 (Pharmacology)
Section cross-reference(s): 9
ST **peptide cellular uptake** lipophilic conjugate; apoptosis decyl **peptide** Bcl2 protein binding
IT Phosphoproteins
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(Bad (Bcl-2 protein-assocd. death promoter), **peptide** of BH3 domain of, Bcl-2 binding by; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Proteins, specific or class
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(Bak, **peptide** of BH3 domain of, Bcl-2 binding by; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Proteins, specific or class
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(Bax, **peptide** of BH3 domain of, Bcl-2 binding by; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Antitumor agents
(acute lymphocytic leukemia; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Leukemia
(acute lymphocytic; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Leukemia
(acute nonlymphocytic; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(bcl-2, **peptide** inhibiting or binding; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Antitumor agents
(chronic lymphocytic leukemia; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Leukemia
(chronic lymphocytic; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Intestine, neoplasm
Intestine, neoplasm
(colorectal, inhibitors; enhancement of **peptide**

cellular uptake using **peptide** conjugates
with lipophilic compds.)
IT Antitumor agents
Intestine, neoplasm
(colorectal; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT **Peptides**, biological studies
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(conjugates, with lipophilic compds.; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Lymphocyte
(disease, self-reactive, induction of apoptosis in; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Antitumor agents
Apoptosis
Cell
Drug delivery systems
Lipophilicity
Melanoma
Stomach, neoplasm
(enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT **Peptides**, biological studies
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Kidney, neoplasm
Kidney, neoplasm
Stomach, neoplasm
Stomach, neoplasm
Thyroid gland, neoplasm
Thyroid gland, neoplasm
(inhibitors; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Antitumor agents
Antitumor agents
(kidney; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Antitumor agents
(lung non-small-cell carcinoma; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Antitumor agents
(melanoma; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Prostate gland
Prostate gland
(neoplasm, inhibitors; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)

IT Prostate gland
(neoplasm; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Nerve, neoplasm
Nerve, neoplasm
(neuroblastoma, inhibitors; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Antitumor agents
Nerve, neoplasm
(neuroblastoma; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Lung, neoplasm
Lung, neoplasm
(non-small-cell carcinoma, inhibitors; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Lung, neoplasm
(non-small-cell carcinoma; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Fusion proteins (chimeric proteins)
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(of GST and Bcl-2, **peptides** binding to; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Antitumor agents
(prostate gland; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Antitumor agents
Antitumor agents
(stomach; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Antitumor agents
Antitumor agents
(thyroid; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Biological transport
(uptake; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Infection
(viral, apoptosis in cells with; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT Amino acids, properties
RL: PRP (Properties)
(D-, **peptide** contg.; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)
IT 300349-95-5
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(as mutant of BakBH3 **peptide**, Bcl-2 binding by; enhancement

of **peptide cellular uptake** using
peptide conjugates with lipophilic compds.)

IT 300349-99-9DP, biotinylated
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(**cellular uptake** of; enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)

IT 300349-92-2DP, conjugates with lipophilic compds., analogs 300349-96-6P 300349-97-7P
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)

IT 300349-39-7D, conjugates with lipophilic compds., analogs 300349-40-0D, conjugates with lipophilic compds., analogs 300349-41-1D, conjugates with lipophilic compds., analogs 300349-42-2D, conjugates with lipophilic compds., analogs 300349-43-3D, conjugates with lipophilic compds., analogs 300349-44-4D, conjugates with lipophilic compds., analogs 300349-45-5D, conjugates with lipophilic compds., analogs 300349-46-6D, conjugates with lipophilic compds., analogs 300349-47-7D, conjugates with lipophilic compds., analogs 300349-48-8D, conjugates with lipophilic compds., analogs 300349-49-9D, conjugates with lipophilic compds., analogs 300349-50-2D, conjugates with lipophilic compds., analogs 300349-51-3D, conjugates with lipophilic compds., analogs 300349-52-4D, conjugates with lipophilic compds., analogs 300349-53-5D, conjugates with lipophilic compds., analogs 300349-54-6D, conjugates with lipophilic compds., analogs 300349-55-7D, conjugates with lipophilic compds., analogs 300349-56-8D, conjugates with lipophilic compds., analogs 300349-57-9D, conjugates with lipophilic compds., analogs 300349-58-0D, conjugates with lipophilic compds., analogs 300349-59-1D, conjugates with lipophilic compds., analogs 300349-60-4D, conjugates with lipophilic compds., analogs 300349-61-5D, conjugates with lipophilic compds., analogs 300349-62-6D, conjugates with lipophilic compds., analogs 300349-63-7D, conjugates with lipophilic compds., analogs 300349-64-8D, conjugates with lipophilic compds., analogs 300349-65-9D, conjugates with lipophilic compds., analogs 300349-66-0D, conjugates with lipophilic compds., analogs 300349-67-1D, conjugates with lipophilic compds., analogs 300349-68-2D, conjugates with lipophilic compds., analogs 300349-69-3D, conjugates with lipophilic compds., analogs 300349-70-6D, conjugates with lipophilic compds., analogs 300349-71-7D, conjugates with lipophilic compds., analogs 300349-72-8D, conjugates with lipophilic compds., analogs 300349-73-9D, conjugates with lipophilic compds., analogs 300349-74-0D, conjugates with lipophilic compds., analogs 300349-75-1D, conjugates with lipophilic compds., analogs 300349-76-2D, conjugates with lipophilic compds., analogs 300349-77-3D, conjugates with lipophilic compds., analogs 300349-78-4D, conjugates with lipophilic compds., analogs 300349-79-5D, conjugates with lipophilic compds., analogs 300349-80-8D, conjugates with lipophilic compds., analogs 300349-81-9D, conjugates with lipophilic compds., analogs 300349-82-0D, conjugates with lipophilic compds., analogs 300349-83-1D, conjugates with lipophilic compds., analogs 300349-84-2D, conjugates with lipophilic compds., analogs 300349-85-3D, conjugates with lipophilic compds., analogs 300349-86-4D, conjugates with lipophilic compds., analogs 300349-87-5D, conjugates with lipophilic compds., analogs 300349-88-6D, conjugates with lipophilic compds., analogs 300349-89-7D,

conjugates with lipophilic compds., analogs 300349-90-0D, conjugates with lipophilic compds., analogs 300349-91-1D, conjugates with lipophilic compds., analogs 300349-93-3D, conjugates with lipophilic compds., analogs 300349-94-4D, conjugates with lipophilic compds., analogs
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)

IT **50812-37-8D**, Glutathione S-transferase, fusion proteins with Bcl-2, **peptides** binding to
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)

IT **2321-07-5DP**, Fluorescein, conjugates with **peptide**
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)

IT 300349-98-8DP, biotinylated,resin-bound
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)

IT **2082-76-0**, Decanoic anhydride
RL: RCT (Reactant); RACT (Reactant or reagent)
(enhancement of **peptide cellular uptake** using **peptide** conjugates with lipophilic compds.)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:711036 HCAPLUS
DOCUMENT NUMBER: 130:100406
TITLE: Reversible lipidization for the delivery of **peptide** and protein drugs
AUTHOR(S): Shen, Wei-Chiang; **Wang, Jeff**; Shen, Daisy
CORPORATE SOURCE: Department of Pharmaceutical Sciences, University of Southern California School of Pharmacy, Los Angeles, CA, 90033, USA
SOURCE: Alfred Benzon Symposium (1998), 43(Peptide and Protein Drug Delivery), 397-410
CODEN: ABSYB2; ISSN: 0105-3639
PUBLISHER: Munksgaard International Publishers Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 16 refs. Binding of Bowman-Birk protease inhibitor (BBI) and Pal-BBI to serum proteins, **cellular uptake** and processing of BBi and Pal-BBI in cultured caco-2 cells, pharmacokinetics and biodistribution of Pal-BBI, recovery of biol. activity of BBI from Pal-BBI and the site of Pal-BBI redn. are discussed.

CC 63-0 (Pharmaceuticals)

ST review lipidization **peptide** protein drug delivery

IT Drug delivery systems
Lipophilicity
(reversible lipidization for the delivery of **peptide** and protein drugs)

IT Lipids, biological studies
Peptides, biological studies
Proteins, general, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(reversible lipidization for the delivery of **peptide** and protein drugs)

IT 37239-97-7
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(reversible lipidization for the delivery of **peptide** and protein drugs)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT